



Certificate Number	18- HS3574030-A
Effective Date	16-11-2018
Expiry Date	15-11-2021
ABS Port Office	Houston
Specialist's Website	www.stress.com

CERTIFICATE OF Recognized External Specialist

This is to certify that

STRESS ENGINEERING SERVICES, INC.

located at

13800 WESTFAIR EAST DRIVE, HOUSTON, TX 77041

having been audited by ABS and having given a satisfactory practical demonstration of the service listed below, is recognized by ABS as a Service Provider to provide services which ABS Surveyors may rely on to make decisions affecting classification or statutory surveys.

Condition Monitoring Firm

It is the responsibility of the Service Provider to employ, train and qualify persons in the service provided. If the service requires approval from manufacturers, the service provider is responsible to maintain contact with the manufacturer and maintain any service manuals up to date. Where required by the category of service, specialists shall provide valid evidence that it is authorized or licensed by the equipment manufacturer to service the particular makes and models of equipment for which approval is sought. If approval from the manufacturer is not attained, a surveyor must be present at time of survey to continue work. Alternatively, current written instructions from the flag state are to be obtained to continue work without the surveyor present. Service technicians must present photo identification, evidence of qualification and authorizations from manufacturers, as applicable, at the time of service.

The ABS office issuing this certificate is to be kept updated with changes to the management of the company, its employees, equipment and models on the authorization list and any changes made.

See enclosed Appendix for scope of approval, authorized personnel, manufacturer authorizations, and subcontractors, etc.



Tokchung Kim, Surveyor



TERMS AND CONDITIONS

The issuance and interpretation of this Certificate of Service Recognition is subject to the following terms and conditions.

1. REPRESENTATIONS AS TO SERVICE RECOGNITION

A Certificate of Service Recognition (hereinafter referred to as "certificate") is a representation only that the specified Company has been audited by ABS and has given a satisfactory practical demonstration of the listed services which ABS Surveyors may rely on to make decisions affecting classification or statutory surveys and is issued solely for the use of ABS and its committees. The validity, applicability and interpretation of this certificate are governed by the Rules, Guides, or standards of American Bureau of Shipping who shall remain the sole judge thereof.

2. RESPONSIBILITY AND LIABILITY

The Company is not a subcontractor of ABS and is not an agent of ABS for any purpose. The Company remains solely responsible for its equipment, the qualifications and competency of its personnel, the supervision of its personnel, and the safety of its personnel while performing its services. Nothing contained in this certificate or any letter or report issued in contemplation of this certificate shall be deemed to relieve Company or any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied nor to create any interest, right, claim or benefit in any third party. It is understood and agreed that nothing expressed herein is intended or shall be construed to give any person, firm or corporation, other than the parties hereto, any right, remedy or claim hereunder; all provisions hereof are for the sole and exclusive benefit of the parties hereto.

3. LIMITATION

ABS makes no representations beyond those contained herein regarding its reports, letters, audits, certificates or other services.

4. HOLD HARMLESS

The party to whom this certificate is issued, and his assignee and successor in interest, agree to indemnify and hold harmless ABS from and against any and all claims, demands, lawsuits, or actions for damages, including legal fees, to persons and property, tangible, intangible, or otherwise which may be brought against

ABS incidental to, arising out of or in connection with the work done, services performed or material to be furnished under this certificate, except for those claims caused solely and completely by the negligence of ABS, its agents, employees, officers, directors or subcontractors.

Company shall defend, indemnify, and hold harmless ABS and its affiliates from and against any and all third party claims and liabilities (including, without limitation, reasonable attorneys' fees and costs), regardless of the form of action, arising out of or in connection with a claim that the service(s) offered by Company for which Company has sought recognition from ABS, infringes, violates, or misappropriates a valid third party patent, copyright, or other proprietary right, provided that Company is promptly notified in writing of such claim, and ABS has not reached any compromise or settlement in such action or made any admissions in respect of the same.

5. ARBITRATION

Any and all differences and disputes of whatsoever nature arising out of or relating to this certificate shall be put to arbitration in the City of New York pursuant to the laws relating to arbitration there in force, before a board of three persons, consisting of one arbitrator to be appointed by ABS, one by Company, and one by the two so chosen. The decision of any two of the three on any point or points shall be final. Until such time as the arbitrators finally close the hearings either party shall have the right by written notice served on the arbitrators and on an officer of the other party to specify further disputes or difference under this Agreement for hearing and determination. The arbitration is to be conducted in accordance with the rules of the Society of Maritime Arbitrators, Inc. The arbitrators may grant any relief, other than punitive damages which they, or a majority of them, deem just and equitable and within the scope of the agreement of the parties, including, but not limited to, specific performance. Awards made in pursuance to this clause may include costs including a reasonable allowance for attorney's fees and judgment may be entered upon any award made hereunder in any court having jurisdiction. ABS and Company hereby mutually waive any and all claims to punitive damages in any forum. Company shall be required to notify ABS within thirty (30) days of the commencement of any arbitration between it and third parties which may concern

ABS' work in connection with this certificate and shall afford ABS an opportunity, at ABS' sole option, to participate in the arbitration.

6. TIME BAR TO LEGAL ACTION

Any statutes of limitation notwithstanding, Company expressly agrees for itself and its affiliated companies that its right to bring or to assert against ABS any and all claims, demands or proceedings whether in arbitration or otherwise shall be waived unless (a) notice is received by ABS within thirty (30) days after Company or its affiliates had notice of or should reasonably have been expected to have had notice of the basis for such claims; and (b) arbitration or legal proceedings, if any, based on such claims or demands of whatever nature are commenced within one (1) year of the date of such notice to ABS.

7. LIMITATION OF LIABILITY

The combined liability of American Bureau of Shipping, its officers, employees, agents or subcontractors for any loss, claim, or damage arising from negligent performance or non-performance of any services under this Agreement, or from breach of any implied or express warranty of workmanlike performance in connection with the services, or from any other reason, to any person, corporation, partnership, business entity, sovereign, country or nation, shall be limited to the greater of a) \$100,000 or b) an amount equal to ten times the sum actually paid for the services alleged to be deficient. The limitation of liability may be increased up to an amount twenty-five times that sum paid for services upon receipt of Company's written request at or before the time of performance of service and upon payment by Company of an additional fee of \$10 for every \$1,000.00 increase in the limitation.



APPENDIX TO ABS EXTERNAL SPECIALIST CERTIFICATION NO. 18- HS3574030-A

Scope of Approval, Limitations or Restrictions

Fatigue Monitoring of drilling risers using a Real-Time Fatigue Monitoring System (RFMS) or Subsea Vibration Data Logger (SVDL), intended to support riser condition-based maintenance (CBM) programs. The riser CBM program will be managed by Stress Engineering Services, Inc. (SES) and associated inspections supported by LaserStream LP (LS).

- The riser CBM program developed for each owner and /or specific asset will need to be approved by ABS.
- Riser inspection are to be performed by ABS approved "External Specialist"

Authorized Personnel

As per organization chart

Quality Manager

Kenneth Bhalla

Manufacturer's Authorizations

N/A

Subcontractor and Scope of Subcontracting Work

N/A

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau. This certificate is a representation only that the Company has been assessed in accordance with ABS procedures and found capable of providing the listed service as limited by the associated recognition letter. This certificate is governed by the Terms and Conditions on the above page hereof and by the Rules, Guides or Standards of the American Bureau of Shipping, who shall remain the sole judge thereof.